



WAIS Inc. Publishing: Systems & Services

Wide Area Information Servers Inc. ©1995



WAIS evolution

- Brewster Kahle - Thinking Machines, Inc.
- Government Agencies - mid/late 80's
 - ◊ Intelligence Community
 - Lots of Content - Geographically Dispersed Databases
- The "Wide Area Information Server" Consortium - 1989 -1991
 - ◊ Thinking Machines (search software and prototype implementation)
 - ◊ Apple Computer (client software design)
 - ◊ Dow Jones & Co (content)
 - ◊ KPMG Peat Marwick (customer that understands integration)



WAIS evolution (cont.)

- First Freeware version released to the Internet - April, 1991
 - ◊ Public domain source code (server, protocol and client)
- Brewster Kahle leaves TMC to build a UNIX-based server system for Perot Systems and other customers - WAIS Inc. is born in Menlo Park, California - July, 1992
- WAISserver 1.0 ships - April, 1993
- WAISserver 2.0 ships - October, 1994

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WAIS Inc. early customers

- WAISserver - Sold to Government Agencies, Universities, Hi-Tech Corporations
- Production Services
 - ◊ Dow Jones & Co.
 - ◊ Encyclopædia Britannica
 - ◊ Scholastic, Inc.
- Publishers gave WAIS Inc. the data and asked for a publishing system
 - ◊ Integrate Searching with Gopher server
 - No graphics - open and close files

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Then came the WWW - 1993

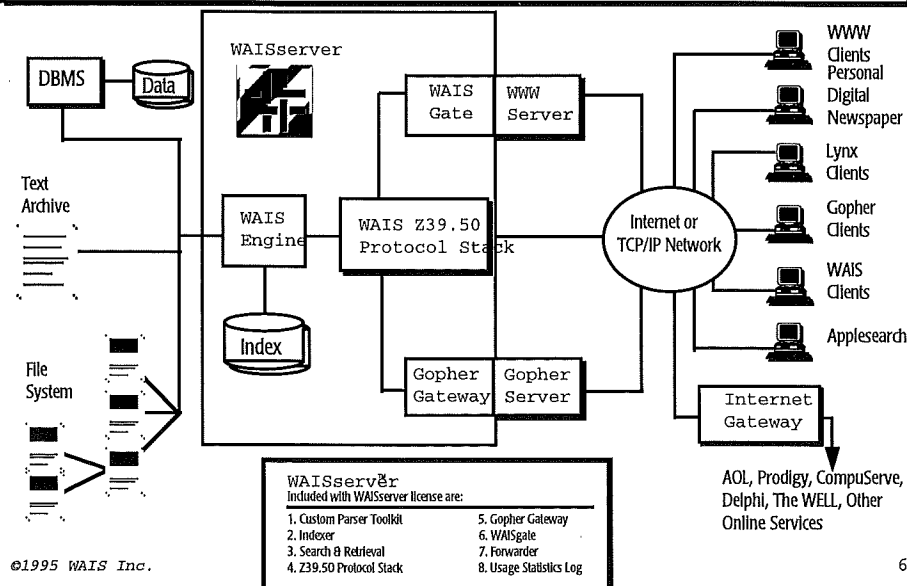
- Point and Click with fancy graphics, but the WWW server provided no professional publishing tools
- Publishers asked WAIS Inc. to integrate the WAISserver with their WWW servers
 - ◊ Searching with natural language queries
 - ◊ Usage Statistics- who is looking at what
 - ◊ WAISserver could be used with any WWW server software
 - CERN (creators of the WWW architecture)
 - NCSA (home of Mosaic)
 - Netsite (Netscape)
 - Spry

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Where WAISserver Fits



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Publishers wanted more

- Advertising
- User registration
- Content Alerting Options
- Usage Reports from the stats being collected
- Hosting Services

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WAIS Inc. enhanced WWW

With WWW server and WAISserver running together, WAIS Inc. started enhancing WWW services with various forms of all of the following modules:

- Advertising
 - ◊ Logo only
 - ◊ Logo with sponsors WWW message
 - ◊ Logo with sponsors WWW server
 - ◊ Specific search queries result in selected logo/icon
 - ◊ Reports to provide sponsors with 'number of hits' report(s)

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WAIS Inc. enhancements

- Registration
 - ◊ Basic user authentication (name & password)
 - ◊ Demographics
 - ◊ Send demographics to publisher
 - ◊ Establish and maintain a database for publisher
 - ◊ Reports by department or publication cut various ways
 - ◊ Tie user demographics to advertising 'hits'
- Billing
 - ◊ Collect financial information and forward to publisher
 - ◊ Collect financial information and credit account
 - ◊ Subscription
 - ◊ Transaction (pay as you go)
 - ◊ Personalized invoicing

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WAIS Inc. enhancements

- Content Expiration
 - ◊ Automatically delete old information (sales, specials, etc.)
- Facsimile
 - ◊ Fill in online form and receive facsimile response
 - ◊ Dial for a WWW facsimile page(s)
 - ◊ Automatically receive facsimile of new content
- Management Reports
 - ◊ Stats on total usage
 - ◊ Technical stats to 'tune' the system
 - ◊ Registration database cuts (see above)

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WAIS Inc. enhancements

- Audio
 - ◊ Audio clips (WAISserver can index almost anything)
 - ◊ Download audio clips
 - ◊ Search result is in audio format
 - ◊ Radio & live information
- Video
 - ◊ Video clips (WAISserver can index almost anything)
 - ◊ Download video clip
 - ◊ Continuously running video clips
- Bulletin Boards/Letters to the Editor/CHAT

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WAIS Inc. enhancements

- Contests/Trivia/etc.
 - ◊ Forms for submitting answers on HTML pages that go on and on
- Gift-of-the-day/Highlight-of-the-day
 - ◊ Free news stories, sports clip, this-date-in-history that automatically changes on a daily basis
- User Satisfaction Survey(s)
 - ◊ Basic form with responses going to . .
 - ◊ Need to summarize into reports

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WAIS Inc. enhancements

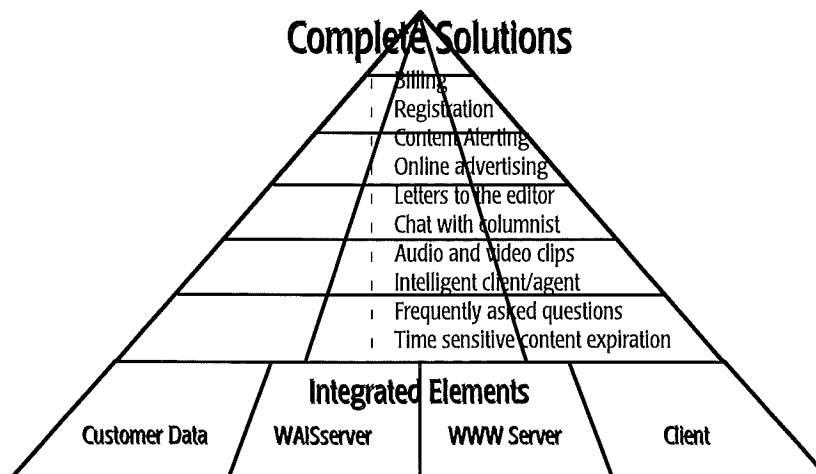
- Notification of New Content
 - ◊ Learn the habit of the end-user and notify them of new content automatically
 - ◊ Store last 10 searches
- Personal Digital Newspaper
 - ◊ Putting the power for personal profiling in the users hand
- Forms-based searching
 - ◊ Coaching the end-user to what they need (travel agent questionnaire about your personal vacation parameters which initiates a WAISserver search in the background)

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Production Services



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Is WAIS Inc. too expensive?

Perception at America Online that WAIS Inc. is twice as expensive

- Competition is HTML shops that do a home page and an ad
 - ◊ Very early in the learning curve
 - ◊ Unaware of total cost of running services
- Only comparison are companies that hire teams of five or more people
 - ◊ Able to leverage service expertise over multiple publishing partners

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WAIS Inc. Production Process

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1. Educate, Define Objective, Surf (sales team)
 - ◊ Educate customer on WWW, Gopher, WAIS technologies
 - ◊ What is the objective for the WWW service?
 - Marketing Exposure
 - Revenue (front-end and/or back-end)
 - Enhancement to another service (AOL, Print, etc.)
 - ◊ Understand the customers' competing services and WWW servers
 - Surf the net with the customer looking at competing/complimentary service

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WAIS Inc. Production Process

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2. Determine modules and technologies desired/required (sales team)
 - ◊ WWW with WAISserver
 - ◊ Advertising (how complex from the table above)
 - ◊ Registration (how does the publisher want it to work if there were no limits on the technology)
3. Where will the data come from? (sales team)
 - ◊ Multiple databases/satellite feeds/Corporate archives?
 - ◊ Cluster of corporate assets? (Word, Quark, Graphics, etc.)

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- 3 (cont'd). Where will the data come from? (sales team)
 - ◊ Is data clean? (fragmented, readable with a 1990's technology)
 - ◊ Does data exist? (new WWW venture may not have data)
 - ◊ How often does the data change by department, publication, etc.? (daily, weekly, monthly, dynamic, combination)
 - ◊ How much data is there? (megabytes, gigabytes, etc.)

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4. How do we get the data? (sales team)
 - ◊ Prefer FTP server on the Internet
 - ◊ Background WWW server
 - ◊ Tape, CD, other? (overnight carrier, US Mail)
 - ◊ Satellite feed
 - ◊ Dial-up
 - ◊ Is WAIS Inc. to build an archive from the data received from this day forward?

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5. Look and Feel (sales team)
 - ◊ Put technical hat away and assist the customer in drawing out what they need/want
 - Assume there is no limit to the technology
 - What should the user-experience be?
 - ◊ Graphics and artwork
 - WAIS to create or customer to assist from their graphics dept.

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6. Proposal (sales team and production services)
 - ◊ Only after items #1-#6 are answered can WAIS Inc. propose a comprehensive WWW server solution
 - ◊ WAIS Inc. Production Services Manager must see data from #3
 - ◊ Production Services Manager signs off on milestones, assumptions and data samples obtained above in proposal
 - ◊ Publisher frequently has us re-propose upon seeing proposal design from WAIS Inc.

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7. Purchase order (sales team)
 - ◊ Prefer contract, but PO with payments for milestones is sufficient
 - ◊ Contract may not be appropriate based on undefined issues above or what is included in maintainence once the system is completed
8. Design (production services)
 - ◊ Storyboard developed for prioritizing module implementation
 - ◊ Refine sales proposal into a systems requirement/ specification that publisher/partner will sign

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- ◊ Obtain data and test process on getting data in a consistent format
- ◊ Determine what feed handlers will be required and spec them
- ◊ Provide publisher with detailed mock-up
 - HTML
 - Graphical Design
 - Search area with fake data
 - Sample ad
 - How user registration will appear to end-user
- ◊ (Sales team polices process for 'creeping feature syndrome' with production service manager)

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9. Publisher sign-off on requirement/spec document and mock-up (production services)
 - ◊ Publisher and WAIS Inc. agree on changes to System Requirements and/or System Specification
 - ◊ Publisher explains desired changes to mock-up
 - Graphics changed or moved
 - Different fields for searching
 - Copyright notices, legal issues surface
 - Determine if new/different data required
 - ◊ (Sales team renegotiates based on new databases, new features, etc.)

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10. Build the System (production services)
 - ◊ Build the feed handlers
 - ◊ Get data in consistent format(s)
 - ◊ Build the databases
 - ◊ Integrate the databases
 - ◊ Establish links to other WWW sites, content
 - ◊ Obtain hardware and software required
 - ◊ Build maintenance software (staging areas, customer trigger files, reports)

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11. Launch System (production services and customer service)
 - ◊ Train the customer
 - ◊ Test staging areas and trigger files
 - ◊ Drive sample reports
 - ◊ Communicate maintenance and escalation procedures
 - ◊ Participate in marketing and press releases
 - ◊ WAIS Inc. customer service assumes responsibility
 - ◊ Determine maintenance costs and sign contract if not completed

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12. On-going support and maintenance (customer service)
 - ◊ Server(s) running at WAIS Inc. or at publisher location
 - ◊ Daily, weekly, monthly reports
 - ◊ 7x24 operation (modify procedures- trouble reporting/escalation)
 - ◊ Sales proposes changes required (then back to production services)
 - ◊ Client problems (I can't access the server with 'X' client)
 - ◊ Update advertising links, monitor data feeds, etc.
 - ◊ Monitor usage stats to ensure proper bandwidth, storage, RAM, processing power, etc.

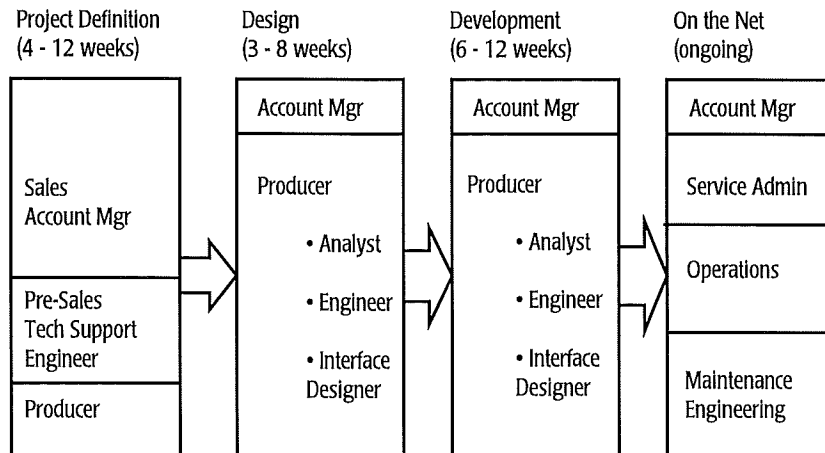
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A team approach...

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There is an alternative!

- For \$25,000 to \$50,000 WAIS Inc. will contract for items #1 to #8 and/or #9
- Desirable alternative for WAIS Inc. in most circumstances
 - ◊ Look and Feel always changes
 - ◊ Databases change
 - ◊ Other departments get excited and want in
 - ◊ Allows us to do fixed price without having to drive for items #1- #5 prior to proposal when the publisher doesn't have answers to these items



There is an alternative!

- Advantageous for publisher
 - ◊ Allows publisher to determine what they need without contracting based on unknowns
 - ◊ Provides them with a system requirement/specification document and working mock-up for WAIS Inc. to provide a fixed fee bid to proceed OR for publisher to bid on the market
 - ◊ Limits exposure on a project that people do not understand



Working with America Online IP's

1-A) The model above contracted for directly between WAIS Inc. and IP

- ◊ Usually \$100K to \$500K to build based on
 - The data (how much/different/often, how do we get it?)
 - The 'modules' desired and/or required
 - How deep the modules go (ie. registration with authentication, database, tying the database to reports, etc.)1-A)
- ◊ Maintenance of \$5K to \$25K per month based on
 - Who runs the server?
 - How often is content updated?
 - How many and dynamic are reports?
 - Who does the day-to-day advertiser updates, etc.?
 - Does the publisher take the initial call for trouble reporting from the end-user?

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Working with America Online IP's Cont.

1-B) America Online contracts WAIS Inc. to build service and subsidizes the development fees

- ◊ \$150,000 project completed with \$75,000 from the IP and \$75,000 from America Online brand
- ◊ Maintenance negotiable with minimum monthly guaranteed to ensure server uptime

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Working with America Online IP's Cont.

2) Revenue Sharing

- ◊ WAIS Inc. does development for \$0 based on the following revenue sharing outline

| Item | |
|--------------------------------------|-----|
| Where does the content come from? | 40% |
| Who does billing, sales & marketing? | 30% |
| Who runs the server? | 20% |
| Any special client software (PDN)? | 10% |



Working with America Online IP's Cont.

- ◊ Usually results in WAIS Inc. receiving 20% for server operations and 10% for client software development/support. 40% for content usually goes to the publisher/IP, and billing, sales and marketing is negotiated
- ◊ REQUIRES DUE DILIGENCE BY WAIS INC. ON THE PUBLISHER/IP PRIOR TO AN AGREEMENT TO DESIGN/BUILD/MAINTAIN
 - Microsoft Network requires publishers to wait 2 months as their proposal is being evaluated



Other Considerations

- IP who wants basic WWW site (home page, no searching/modules)
 - ◊ Call WAIS to determine possibilities
 - WAIS Inc. VAR builds it for the Publisher/IP; AOL Account team maintains control
 - NaviSoft tools
 - WAIS Inc. tools (WAISserver)
 - AOL Brand to eventually provide WWW authoring tools for Grandma and small businesses

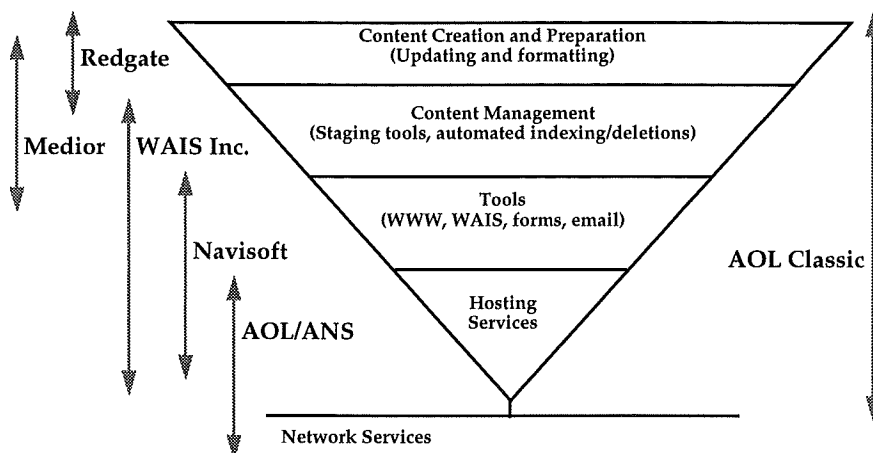


Other Considerations

- Major IP who wants to start small (home page only or subsidiary interest)
 - ◊ Call WAIS Inc. for joint meetings to scope corporate parameters prior to a subsidiary setting the wrong direction
 - ◊ May be appropriate for WAIS Inc. to build a set of templates for subsidiaries/departments for consistent look and feel
 - Integrating independent servers easier in the future
 - Agree on consistent database formats for future
 - ◊ Local VAR or HTML house can build based on corporate direction, but includes considerations from AOL/WAIS



What it takes...



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Who's Who at WAIS Inc.

- Brewster Kahle- Ceo brewster@wais.com 415-356-5410
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- David Kaiser- President david@wais.com 415-346-5427
P&L, Operations, Satisfying AOL
- Bruce Gilliat- VP, Sales & Mktg bruce@wais.com 415-356-5407
Product & Production Services Sales, Mktg
- John Duhring- VP, Bus. Devel. duhring@wais.com 415-356-5406
Relationships with DEC, HP, SUN, NetScape

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Finance, HR, acting VP Production Services
- Don Whitt- Director of Operations don@wais.com 415-356-5434

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